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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,841	11/09/2001	Pochiraju Srinivas Rao	TI-31068	2705

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EXAMINER

QIN, YIXING

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,841

Applicant(s)

RAO, POCHIRAJU SRINIVAS

Examiner

Yixing Qin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 3 relates to the copying of the display list into the second memory. There is insufficient support in the specification as to why there is a need for the copying of the display list into the second memory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (U.S. Patent No. 6,538,764).

1. Claim 1

- Ueda discloses in Figs. 16A and 16B and column 44, lines 49-55 the formation of a display list based upon inputted data.
- Ueda discloses in Fig. 6 item 501, that the intermediate code memory is divided into various bands. Also, in column 33, lines 43-55, Ueda discloses the reason for the compression of a band larger than 64k, that is 16 of 64k or less sized bands will enable the 1mb capacity of the intermediate code memory 501 (i.e.

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page buffer) to store the information for an entire page (note Fig. 11A). Looking again at Fig. 6, one can see that the size of the band memory 502 (i.e. **second memory**) is 256k, which is smaller than the 1mb total size of the intermediate memory, but is bigger than the size of the individual sub-bands (i.e. $256\text{kb} > 64\text{kb}$ – **sub-bands are smaller than the second memory size**).

- Again, one can see in Fig. 6 of Ueda that band n is rendered into band memory 502 (i.e. **render into corresponding location in second memory**). Please note steps (1) through (12) in Fig. 5, in that after step 12, the processing returns to D, which is back to step (1). This indicates that for each element, the bands could be rendered into the band memory if they are too large a size.
- The rightmost figure in Fig. 6 shows that the compressed band n (because it was too large in size) is returned to the intermediate code memory (also see column 33, lines 34-40).
- Ueda discloses in column 33, lines 57-67 and column 34, lines 1-14 the various processing taking place prior to the printing of the page (column 34, lines 13-14).
- The only item not addressed by Ueda is the transfer rate of the first and second memories (i.e. the intermediate code memory and the band buffer). However, one skilled in the art knows the clear advantage of using a faster memory, that is, for faster processing of information. It would be obvious to one of ordinary skill in the art to just simply use a faster type of memory in place of the band buffer. Such techniques are well known in the computing environment and is similar to the idea of caching.

2. Claim 2

- Fig. 1 of Ueda discloses a controller 2000 that incorporates a CPU and RAM. It would be obvious that these two items are built on the same integrated circuit that makes up the controller.

3. Claim 5

- Again, one can see in Fig. 11 of Ueda that the RAM 13 is being partitioned into the first and second memories as discussed in claim 1 above.

4. Claim 6

- One can see in Fig. 6 of Ueda the compression of data as the description of the third figure from the left. Column 34, lines 4-6 disclosed that the CPU is called to expand the data if it has been compressed prior to the printing of the data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381.


The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQ


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SUPERVISORY PATENT EXAMINER
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